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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,899	06/19/2003	Scott R. Samuelson	Samuelson-001	6805
31070	7590	05/18/2005	EXAMINER	
TIMOTHY N. ELLIS, PATENT ATTORNEY 8680 VIA MALLORCA, SUITE D LA JOLLA, CA 92037			WILSON, KATINA M	
			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/600,899

Applicant(s)

SAMUELSON

Examiner

Katina M Wilson

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 32-44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6-10,12-20,22,26-28,30 and 31 is/are rejected.
- 7) ☒ Claim(s) 4-5,11, 21, 23-25 and 29 is/are objected to.
- 8) ☐ Claim(s) 1-44 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: *Restriction is Final*.

DETAILED ACTION

Response to Arguments

Applicant's election with traverse of group I in the reply filed on March 02 2005 is acknowledged. The traversal is on the ground(s) that claim 31 does not require an audio transducer or light indicator and group I is not a subcombination of group II or group III and group II is not a subcombination of group III. This is not found persuasive because the audio transducer, light indicator and/or electromagnetic transmitter is a type of warning/alarm signal that alerts the operator that the operation has fail, finish, etc. Please note that claims 35,38,39,41,42, group III, are directed to a fluid system (i.e. plumbing network or system, pipe network or system) that employs detection (i.e. leak).

As to the last paragraph, each one of groups includes a limitation of each of the other two groups (i.e. ABbr, Bsp), and by definition is combination/subcombination.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-31, drawn to level detection using an audio transducer/light indicator, classified in class 116, subclass 110, 228.
- II. Claim 32-33, drawn to electronic moisture detector, classified in class 73, subclass 73.
- III. Claim 34-44, drawn to an apparatus/method for leak detection for a plumbing network, classified in class 73, subclass 40+.

Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does

not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because all of group I is not in group II. The subcombination has separate utility such as moisture detection in a tank.

Inventions I and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because all of group I is not in group III. The subcombination has separate utility such as leak detection.

Inventions II and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because all of group II is not in group III. The subcombination has separate utility such as leak detection.

The requirement is still deemed proper and is therefore made **FINAL**.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 8-10, 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Bowen 5485866.

Bowen teaches a level of fluid indicator comprising a housing/valve assembly 5 having a hole/opening; an insertion member/tank neck 20 attached to the housing/valve assembly; a dowel/filling tube defining a dowel/filling tube longitudinal axis, wherein the dowel/filling tube has a first end and second end, and where the dowel/filling tube is inserted into the housing/valve assembly hole/opening; at least one float/float 38 attached to the dowel/filling tube; a detector switch/upper reed switch 132 and lower reed switch 140 having an actuator arm/right and left adjusting rods 142 and 150, wherein the detector switch/upper and lower reed switch is attached to the housing/valve assembly, and wherein the actuator arm/right and left adjusting rods is located proximate the first end of the dowel/filling tube; and visual level indicator 16 (or an audio transducer, col. 4, lines 21-24) attached to the housing/valve assembly (col. 1, lines 15 to col. 8, abstract and figures). Bowen at column 8, lines 14-17, teaches attaching an audio alarm to switch using wire. This meets the limitation of an audio transducer attached to the housing.

As to claim 2, Bowen teaches the insertion member has an insertion member/tank neck hole; wherein the insertion member hole/tank neck is at least

Art Unit: 2856

partially aligned with the housing/valve assembly hole/opening; and wherein the dowel/filling tube is inserted through the insertion member hole/ tank neck and the housing hole/valve assembly opening (figs. 1-2, 11-13).

As to claim 3, Bowen teaches/shows the housing hole and the insertion member hole are substantially round and have substantially a same diameter (figs. 1-2, 11-13).

As to claim 8-9, Bowen shows the insertion member has a first and second side face and wherein the first side face is curved around an axis that is substantially parallel to the longitudinal axis of the dowel (figs. 1-2 and 11-13).

As to claim 10, Bowen shows the housing has a lateral surface, and wherein the lateral surface of the housing is curved around a curvature axis that is substantially parallel to the longitudinal axis of the dowel, and a wherein the curvature axis is substantially collinear with the longitudinal axis of the dowel (figs. 1-2, 11-13).

A to claim 27, Bowen teach visual indication where the at least a portion of the material is transparent 48 (col. 4, lines 22-24).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 16 and 26 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bowen.

As to claim 6, Bowen teaches the insertion member has a length, but not the length of 5.5 centimeters. However, the Applicant only states the length of 5.5 centimeter as an example of the insertion member's length, and states that larger or smaller lengths and/or widths could be used, (page 7, lines 18-20). Normally, it is to be expected that a change in width, or length, or in both, would be an unpatentable modification.

As to claim 16, Bowen teaches a test switch/test arm 161 attached to the housing/valve assembly 5, wherein the test switch/test arm is electrically coupled to the detector switch/switch 132 and 140. Applicant does not expressly teach what type the test switch is used in the invention or that the test switch is electrically coupled parallel with the detector switch/switch 132, 140. However, Bowen teaches the test arm (functional equivalent to the test switch) is used to exercise upper and lower reed switches 132 and 130, and can be included in logic software that is electronically monitoring the filling process (for an electrical connection) (col. 7, lines 13-26, col. 8, lines 8-24). Bowen teaches a circuit that performs the same function, therefore to employ an equivalent circuit would have been in the preview of the skilled artisan and therefore would have been obvious at the time of the invention.

As to claim 26, Bowen teaches the dowel has a substantially circular cross section and a length, but not a length of 31 centimeter. However, in the specification, the Applicant only states the dowel length may have a length of about 31 centimeter as an example, (page 8, lines 23-26). Normally, it is to be expected that a change in width, or length, or in both, would be an unpatentable modification.

In re Aller, 105 USPQ233 (CCPA 1955)

Claims 7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowen in view of Wilkinson (1193744).

Bowen does not teach insertion member has a specified width, and each float has a specified width, and wherein the width of the insertion member is at least as large as the width of each float. However, Wilkinson teaches a pipe 11, which is at least as wide as each float 17, 20 on the rod 18 used to indicate the liquid height. It would have been obvious to one skilled in the art at the time the invention was made to use an insertion member (pipe 11 and packaging box 12) having a width as large as each guidable float (page 2, lines 70-105 and figures 1-2).

As to claim 12, Bowen does not teach a retaining pin attached to the dowel inside the housing. However, Wilkinson teaches a set screw 30, 31 (retaining pin) attached to rod 18 (dowel) inside the casing 13 (housing) where the screws serve as a guide for rod to rise and sink.

Claims 13-15, 17-18, 28, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowen in view of Kirby (3984877).

As to claim 13, Bowen does not teach a battery socket electrically coupled to the detector switch. However, Kirby teaches and shows a battery cell 39 and battery compartment 38 in the control box 15. It is understood by a skilled artisan, if you have a battery in a control box that is electrically connected to an audible warning device such

as a horn, then there is a battery socket electrically coupled to a detecting switch (es) (col. 3, lines 34-66; figures 1-4).

As to claim 14, Bowen does not teach an on/off switch electrically couple to the detector switch and the audio transducer. However, Kirby teaches a control box 15 includes an on/off switch 36 electrically connected to switches 32, 34 and warning device 12 (audio or light) (col. 3, lines 51-66). It would have been obvious to a skilled artisan at the time the invention was made to include an on/off switch electrically couple to the detector switch/lower and upper switch 32, 34 and the audio transducer/warning device 12 to place the warning device 12 in an operative or inoperative state.

As to claim 15, Bowen does not teach detector switch/upper and lower switch 32, 34, audio transducer/audio warning device 40, and the on/off switch are electrically coupled in series, and the wherein the detector switch/upper and lower switch 32, 34 is electrically closed when the actuator arm of the detector switch is not pushed by the first end of the dowel/rod 27. Kirby teaches the switches, audio device and the on/off switch are electrically coupled, wherein the switches are electrically closed when the actuator arm/finger 30 of switch 34 is not pushed/triggered by the first end of the dowel/rod 27 (all figures and col. 3, lines 29-68, col. 4, lines 1-63). Kirby does not clearly teach the elements are electrically coupled in series, however Kirby states the electrical connections between the elements, may be accomplished by the usual wire, solder and terminal arrangement.

As to claim 17 and 18, Bowen does not teach that the electrically connection between an indicator light and audio transducer is in series or parallel to one another.

Art Unit: 2856

However, Kirby teaches the electrical connections within the control box 15 may be accomplished by the *usual wire, solder and terminal arrangement* leaving the electrical connection design open to one skilled in electrical design.

As to claim 28, Kirby teaches/shows the audio transducer/audio warning device is attached to a portion of an exterior surface of the housing/control box (figure 2 and 3).

Claim 30 coincides with claim 1. Kirby teaches an indicator light 41 attached to the housing/control box 15 (figures 1, 2, 3).

Claims 19-20 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowen in view of Crowne (5814830).

Claims 19, 20 further limits claim 1 and claim 31 coincides with claim 1. Bowen does not teach an electromagnetic transmitter electrically coupled to the detector switch. However, Crowne teaches a liquid gauging apparatus comprising a sensor 12 to produce an electromagnetic signal and a remote interrogation 34 means for receiving the electromagnetic signal to produce a system output that corresponds to the liquid quantity where the sensor is coupled to a sensor interface 50, which may be a switch (abstract, Figure 1A and Figure 2 and col.5, lines 20-35). It would have been obvious to a skilled artisan at the time the invention was made to use an electromagnetic transmitter coupled to the sensor interface (which may be a switch) and remote control unit 34 (receiver) to produce and receive electromagnetic signals corresponding to the liquid quantity.

Allowable Subject Matter

Claims 4-5, 11, 21, 23-25, 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Closing

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katina M Wilson whose telephone number is 571-272-2209. The examiner can normally be reached on Mon-Fri 6:15am-2:00pm, off on Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E Williams can be reached on 571-272-2209. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

kw


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